PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference	**FOR FURTHER ACTION**	see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.
RCA 88859		
International application No.	International filing date *(day/month/year)*	(Earliest) Priority Date *(day/month/year)*
PCT/US 99/00409	08/01/1999	08/01/1998
Applicant		
THOMSON CONSUMER ELECTRONICS, INC. et al.		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 3 sheets.

[X] It is also accompanied by a copy of each prior art document cited in this report.

1. **Basis of the report**

 a. With regard to the **language,** the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

 [] the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

 b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international search was carried out on the basis of the sequence listing :

 [] contained in the international application in written form.

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 [] furnished subsequently to this Authority in computer readble form.

 [] the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

 [] the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2. [] **Certain claims were found unsearchable** (See Box I).

3. [] **Unity of invention is lacking** (see Box II).

4. With regard to the **title,**

 [X] the text is approved as submitted by the applicant.

 [] the text has been established by this Authority to read as follows:

5. With regard to the **abstract,**

 [X] the text is approved as submitted by the applicant.

 [] the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the **drawings** to be published with the abstract is Figure No. 2a

 [X] as suggested by the applicant.

 [] because the applicant failed to suggest a figure.

 [] because this figure better characterizes the invention.

 [] None of the figures.

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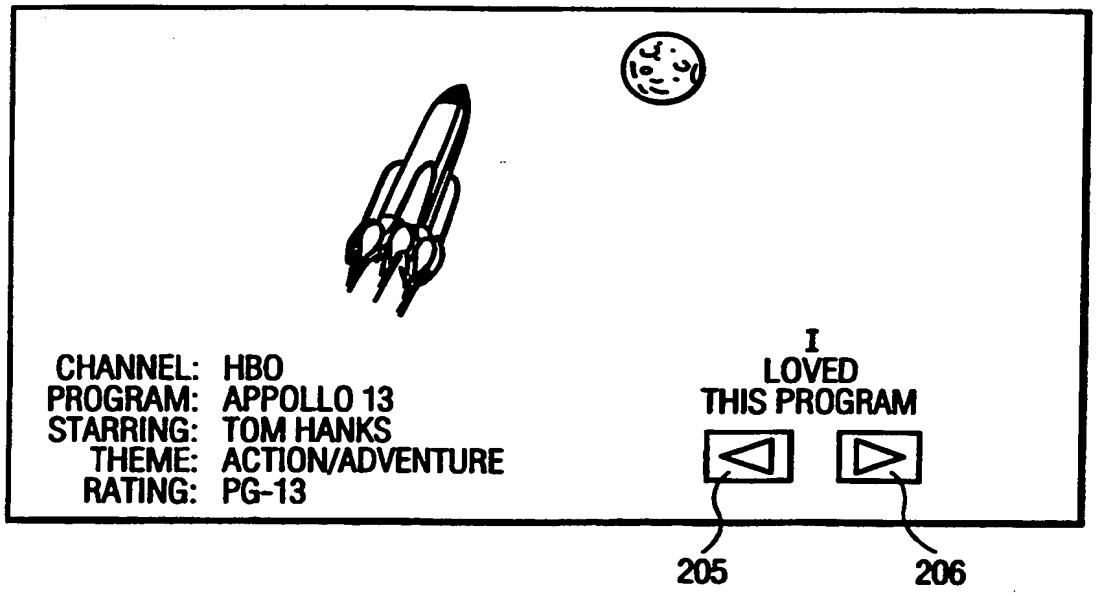
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(54) Title: VIDEO PROGRAM GUIDE APPARATUS AND METHOD



(57) Abstract

A system and a related method for selecting a program for viewing is described. A plurality of programs and associated program information are received from a remote source. A program from said plurality of programs is first selected in response to a user input. Rating information for this selected program is input by a user locally. Another program may then be selected, based on the input rating information and the associated program information.

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VIDEO PROGRAM GUIDE APPARATUS AND METHOD

FIELD OF THE INVENTION

The subject invention concerns a video program guide apparatus and method, and in particular, to an apparatus and method for allowing a user to rate a selected program.

BACKGROUND OF THE INVENTION

The act of selecting a television program to watch has become more complicated in that the number of available channels has increased dramatically of late. For example, RCA® DSS® direct broadcast satellite receivers provide as many as 150 channels to choose from. Heretofore, a user who wanted to see "what's on" could merely consult a television schedule printed in his local newspaper in the hope that he would eventually find a program which sparked his interest.

Such a practice may work well when there are only a few television channel schedules to examine, however, it is unlikely that a viewer would be able to examine the complete schedules for 150 television channels, just to see "what's on" at a given time. Such a task would be daunting even if all of the programs were to be listed by category. A viewer may find that there are only a few programs of interest to him out of the vast number of available programs. Consequently, it is felt that as the number of channels increases, the chances of successfully locating a desirable program in a short time becomes more and more unlikely.

An Electronic Program Guide (EPG) may partially alleviate the above problem. An EPG is an interactive, on-screen display feature that displays information analogous to TV listings found in local newspapers or other print media. In addition, an EPG also

includes information necessary for collating and decoding programs. An EPG provides information about each program within the time frames covered by the EPG which typically ranges from the next hour up to seven days. The information contained in an EPG includes programming characteristics such as channel number, program title, start time, end time, elapsed time, time remaining, rating (if available), topic, theme, and a brief description of the program's content. EPGs are usually arranged in a two-dimensional table or grid format similar to the printed TV guide, with time information on one axis and channel information on the other axis.

Unlike non-interactive guides that reside on a dedicated channel and merely scroll through the current programming on the other channels for the next 2 to 3 hours, EPGs allow viewers to select any channel at any time during some period into the future, e.g., up to seven days forward. Further EPG features include the ability to highlight individual cells of the grid containing program information. Once highlighted, the viewer can perform functions pertaining to that selected program. For instance, the viewer could instantly switch to that program if it is currently being aired. Viewers could also program one touch video cassette recording (VCR) or the like if the television is properly configured and connected to a recording device. Such EPGs are known in the art and described, for instance, in US Pat. Nos. 5,353,121; 5,479,268; and 5,479,266 issued to Young et al. and assigned to StarSight Telecast, Inc.

In addition, US Pat. No. 5,515,106, issued to Chaney et al., and assigned to the same assignee of the present invention, describes in detail an exemplary embodiment including data packet structure necessary to implement an exemplary program guide system. The exemplary data packet structure is designed so that both the channel information (e.g., channel name, call letters, channel number, type,

etc.) and the program information (e.g., title, rating, star, etc.) relating to a program may be transmitted from a program guide database provider to a receiving apparatus efficiently.

Currently, systems are known for monitoring what a user has previously watched, and then suggesting similar programming based on the watching habit of the user. This is disclosed, for example, in allowed U.S. Pat. Application No. 08/573,113, filed 12/15/95, in the names of Wehmeyer, et al., and assigned to the same assignee of the present invention. These known systems, however, do not allow the user to modify the monitoring process in accordance with user preferences. That is, the user cannot indicate whether or not the user liked the program, and therefore, the monitoring/suggesting feature cannot take into account this information when making program suggestions to the user.

SUMMARY OF THE INVENTION

The present inventor recognizes that it is advantageous to get some affirmative feedback about a selected program so that any suggested program may better match a user's tastes or watching habits. Therefore, a system and a related method for selecting a program for viewing is described. A plurality of programs and associated program information are received from a remote source. A program from said plurality of programs is first selected in response to a user input. Rating information for this selected program is inputted by a user locally. Another program may then be selected, based on the input rating information and the associated program information.

BRIEF DESCRIPTION OF THE DRAWING

FIGURE 1 is an illustration of a screen display showing an EPG.

FIGURE 2A and 2B are illustrations of an exemplary screen display for a user to rate a selected program.

FIGURE 3 is a flowchart useful in understanding the invention.

FIGURE 4 is an illustration in block diagram form of an apparatus suitable for use with the invention.

DETAILED DESCRIPTION OF THE INVENTION

Television systems such as the RCA® DSS® direct broadcast satellite system and Starsight® transmit channel guides for display on the television receivers of subscribers. FIGURE 1 shows an Electronic Program Guide screen display 110 which may be produced, for example, by an RCA® DSS® direct broadcast satellite receiver system, manufactured by Thomson Consumer Electronics, Inc. Indianapolis, IN. A user selects a television program from a Program Guide for viewing, by moving a cursor (via operation of, for example, up, down, right, and left, direction control keys, on a remote control device 450R of FIG. 4) to a cell of the program guide screen display which contains the name of the desired program. When a SELECT key, for example, of the remote control 450R is pressed, the current x and y position of the cursor is evaluated to derive virtual channel and program time information. In this example of FIGURE 1, a particular television show, CINE SATURDAY NIGHT MOVIE: ZULU in cell 105 has been highlighted for selection by use of the cursor keys on a remote

control unit (e. g., 450R of FIGURE 4). The highlighting is illustrated by the dark box outlining the title in FIGURE 1. Normally, upon pressing the SELECT key, the relevant programming data is transferred to a programming unit. Note also that an auxiliary text display 120 is shown. Auxiliary text display 120 provides additional program data relating to the highlighted television program. A further use for the data provided by channel guide screen 110 and auxiliary text display 120 will be described below according to aspects of the present invention.

In addition, once a program has been highlighted, as shown in FIGURE 1 and described above, a user may also press a RATING key on remote control unit 450R, for example, to provide evaluation input for a particular show he or she has been watching, according to an aspect of the invention. This exemplary RATING key, may also be pressed during program viewing as shown in FIGURE 2A. Once this key is pressed, the user is allowed to input how much the user has enjoyed the program. As shown in FIGURE 2A, an exemplary embodiment is shown in which the phrase "I *LOVED* this program" is first displayed. This may be, for example, the highest rating a user can give to a program. If the user agrees with this rating, then the user may press, for example, the RATING key again to confirm the rating for this program. The user can also enter a different rating for this program by selecting the left arrow 205 or right arrow 206. The rating displayed will be changed, for example, to "I *HATED* this program", as shown in FIGURE 2B.

FIGURE 3 shows an exemplary flow diagram of a subroutine program which may be executed by an exemplary microprocessor 415R (shown in FIGURE 4) for implementing the features of the present invention. The program is entered at step 300. The microprocessor then determines whether the "Rating Mode"

has been requested by an user in step 305 for a selected program. Again, as described previously, the "Rating Mode" may be invoked by pressing a key such as RATING on a user entry device, such as remote control unit 450R. Once the user has requested to rate a program, the microprocessor 415R will facilitate the entry of the user rating. As shown in step 310 and also as discussed above, one exemplary embodiment for obtaining the user rating information is by displaying a first rating such as "I *LOVED* this program" as shown in FIGURE 2A. In steps 315 and 320, the subroutine will also display another rating for the user to select, if the user request another rating as shown in FIGURE 2B.

Steps 310 – 320 show one embodiment of user entry of rating information. Another exemplary embodiment may include prompting the user to enter a number such as 1 to 5 with 5 as either the highest or the lowest rating. Another embodiment allows the user to enter a letter such as A, B, C, D.with A as the highest or lowest rating, for example.

Once the rating information is entered by the user, the program allows the user to confirm the rating information in step 323, for example, by pressing a key, such as the RATING key as discussed previously. As shown in step 330, once the user confirms the information, this information is then stored in, for example, memory 421R of FIGURE 4, along with the other programming information associated with the selected program, as shown, for example, in block 120 of FIGURE 1.

In step 335, the user may then request the system to suggest programs based on the user entered ratings information. The user may request this, for example, by highlighting an icon SUGGEST 106, as shown in FIGURE 1. Once this has been requested, the system will suggest programs by comparing the user entered rating

information with the program guide information as shown in step 335.

Various methods may be implemented based on the user entered rating information and the program guide data received remotely. A simple suggestion algorithm may be, for example, to suggest to a viewer all the programs which have the same characteristics as a program which has received the highest user rating, based on the program information from the program guide. In other words, the system may suggest to the viewer all the programs which may have the same actor, producer, and/or theme, for example. Another method may comprise concentrating on one particular aspect of programming information such as THEME. The user ratings may then be used to create a histogram for each THEME type to see if there is any preference trend for that viewer. If a preference trend is detected, then a program having that particular theme is then suggested. Other suggestion methods may include having some weighting factors for each programming characteristic of a rated program. One skilled in the art can readily recognize that many methods may be developed to take advantage of both the user input rating information of programs viewed the received program guide information to suggest new programs to user.

As noted above, the program guide information used by the controller of the subject apparatus according to the aspects of the present invention may be received from a satellite television communication system. FIGURE 4 shows such a satellite television communication system in which, a satellite 400S receives a signal representing audio, video, or data information from an earth-based transmitter 400T. The satellite amplifies and rebroadcasts this signal to a plurality of receivers 400R, located at the residences of consumers, via transponders operating at specified frequencies and

having given bandwidths. Such a system includes an uplink transmitting portion (earth to satellite), an earth-orbiting satellite receiving and transmitting unit, and a downlink portion (satellite to earth) including a receiver located at the user's residence.

In a such a satellite system, the information necessary to select a given television program is not fixedly-programmed into each receiver but rather is down-loaded from the satellite continually on each transponder. The television program selection information comprises a set of data known as a Master Program Guide (MPG), which relates television program titles, their start and end times, a virtual channel number to be displayed to the user, and information allocating virtual channels to transponder frequencies and to a position in the time-multiplexed data stream transmitted by a particular transponder. In such a system, it is not possible to tune any channel until the first master program guide is received from the satellite, because the receiver (IRD, or Integrated Receiver Decoder) literally does not know where any channel is located, in terms of frequency and position (i.e. data time slot) within the data stream of any transponder.

A master program guide is preferably transmitted on all transponders with the television program video and audio data, and is repeated periodically, for example, every 2 seconds. The master program guide, once received, is maintained in a memory unit in the receiver, and updated periodically, for example every 30 minutes. Retention of the master program guide allows instantaneous television program selection because the necessary selection data are always available. If the master program guide were to be discarded after using it to select a television program, then a delay of at least two seconds would be incurred while a new program guide was

acquired, before any further television program selections could be performed.

Once the channel transponder carrying a desired television program is tuned, the data packets containing the audio and video information for that program can be selected from the data stream received from the transponder by examining the data packets for the proper SCID (Service Component Identifier) 12 bit code. If the SCID of the currently received data packet matches the SCID of the desired television program as listed in the program guide, then the data packet is routed to the proper data processing sections of the receiver. If the SCID of a particular packet does not match the SCID of the desired television program as listed in the program guide, then that data packet is discarded.

A brief description of system hardware, suitable for implementing the above-described invention, now follows. In FIGURE 4, a transmitter 400T processes a data signal from a source 401 (e.g., a program signal source) and transmits it to a satellite 400S which receives and rebroadcasts the signal to a receiving antenna 400A which applies the signal to a receiver 400R. Transmitter 400T includes an encoder 410T, a modulator (i.e., modulator/forward error corrector (FEC)) 420T, and an uplink unit 430T. Encoder 410T compresses and encodes signals from source 401 according to a predetermined standard such as MPEG. MPEG is an international standard developed by the Moving Picture Expert Group of the International Standards Organization for coded representation of moving pictures and associated audio stored on digital storage medium. An encoded signal from unit 410T is supplied to modulator/Forward Error Corrector (FEC) 420T, which encodes the signal with error correction data, and Quaternary Phase Shift Key (QPSK) modulates the encoded signal onto a carrier.

Uplink unit 430T transmits the compressed and encoded signal to satellite 400S, which broadcasts the signal to a selected geographic reception area. The signal from satellite 400S is received by an antenna dish 400A coupled to an input of a so-called set-top receiver 400R (i.e., an interface device situated atop a television receiver). Receiver 400R includes a demodulator (demodulator/Forward Error Correction (FEC) decoder) 410R to demodulate the signal and to decode the error correction data, an IR receiver 412 for receiving IR remote control commands, a microprocessor 415R, which operates interactively with demodulator/FEC unit 410R, and a transport unit 420R to transport the signal to an appropriate decoder 430R within unit 400R depending on the content of the signal, i.e., audio or video information. An NTSC Encoder 440R encodes the decoded signal to a format suitable for use by signal processing circuits in a standard NTSC consumer VCR 402 and standard NTSC consumer television receiver 403. Microprocessor (or microcontroller, or microcomputer) 415R receives infrared (IR) control signals such as key presses SELECT, RATING as discussed above, from remote control unit 450R, and sends control information to VCR 402 via an IR link 418R. Microprocessor 415R also generates the on-screen display (OSD) signals needed for presenting the interactive or confirmation EPG display screen shown for example in FIGURES 1, 2A or 2B, to the user. Microprocessor 415R also receives and interprets cursor key X and Y information in order to control the highlighting and selection of user choices in the on-screen display screens. In addition, Microprocessor 415R executes the program subroutine as represented by flow chart of FIGURE 3 to provide the features according to aspects of the present invention.

Although the invention was described with reference to a satellite television system, it is equally applicable to ground based television broadcast systems, both digital and analog, a settop box receiver, or any other electronic devices capable of receiving and processing electronic program guide information.

It will be understood that various changes in the details, materials, and arrangements of the parts which have been described and illustrated above in order to explain the nature of this invention may be made by those skilled in the art without departing from the principle and the scope of the invention as recited in the following claims.

CLAIMS

1. A method for controlling a signal processing system, comprising the steps of:

receiving from a remote source a plurality of programs and associated program information;

selecting a first program from said plurality of programs in response to a user input;

inputting rating information for said first selected program; and

selecting a second program in response to said input rating information and said associated program information.

2. The method of claim 1 wherein said rating information indicates user preference for said first selected program.

3. The method of claim 2 wherein said rating information comprising at least a numeric character.

4. The method of claim 3 wherein said rating information comprising at least an alphabetic character.

5. The method of claim 1 further comprising the step of storing said rating information in memory.

6. A method for processing program guide information, comprising the steps of:

receiving said program guide information from a remote source;

storing said program guide information in memory;

obtaining a rating locally for a selected program; and

associating said rating with said selected program.

7. The method of claim 6 wherein said rating indicates user preference for said selected program.

8. The method of claim 7 further comprising the step of:

storing said rating with said selected program alone with portion of said program guide information associated with said selected program.

9. An apparatus for suggesting a program for viewing, comprising:

means for receiving from a remote source a plurality of programs and associated program information;

means for selecting a first program from said plurality of programs in response to a user input;

means for inputting rating information locally for said first selected program; and

means for selecting a second program based on said input rating information and said associated program information.

10. The apparatus of claim 9 wherein said rating information indicates user preference for said first selected program.

11. The apparatus of claim 10 wherein said rating information comprising at least a numeric character.

12. The apparatus of claim 11 wherein said rating information comprising at least an alpha character.

13. The method of claim 1 wherein the step of inputting said rating information is performed locally.

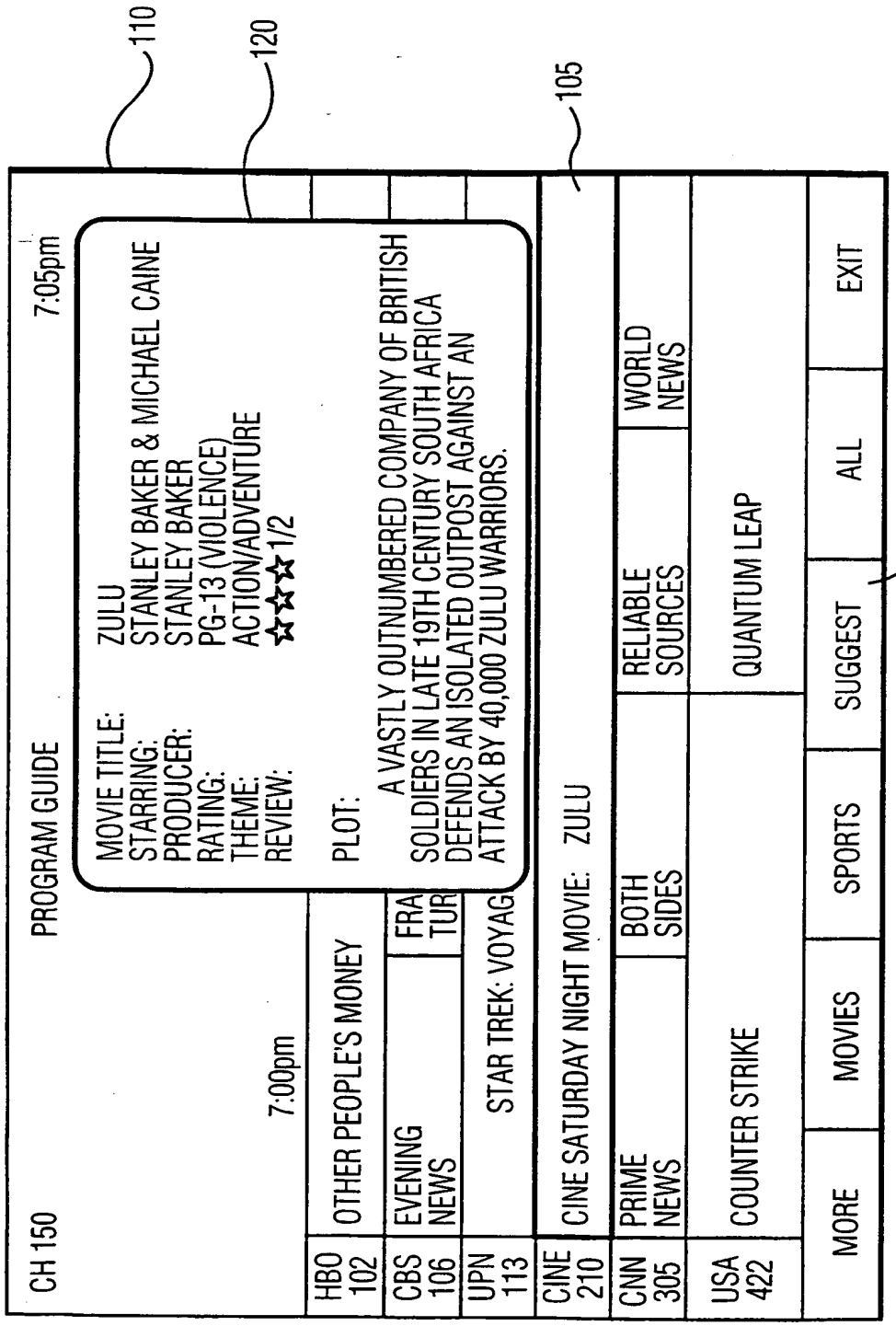

110
120
105
CH 150
PROGRAM GUIDE
7:05pm
MOVIE TITLE: ZULU
STARRING: STANLEY BAKER & MICHAEL CAINE
PRODUCER: STANLEY BAKER
RATING: PG-13 (VIOLENCE)
THEME: ACTION/ADVENTURE
REVIEW: ☆☆☆1/2
PLOT:
A VASTLY OUTNUMBERED COMPANY OF BRITISH SOLDIERS IN LATE 19TH CENTURY SOUTH AFRICA DEFENDS AN ISOLATED OUTPOST AGAINST AN ATTACK BY 40,000 ZULU WARRIORS.
7:00pm
HBO 102
OTHER PEOPLE'S MONEY
CBS 106
EVENING NEWS
FRA TUR
UPN 113
STAR TREK: VOYAG
CINE 210
CINE SATURDAY NIGHT MOVIE: ZULU
CNN 305
PRIME NEWS
BOTH SIDES
RELIABLE SOURCES
WORLD NEWS
USA 422
COUNTER STRIKE
QUANTUM LEAP
MORE
MOVIES
SPORTS
SUGGEST
ALL
EXIT
106

FIG. 1

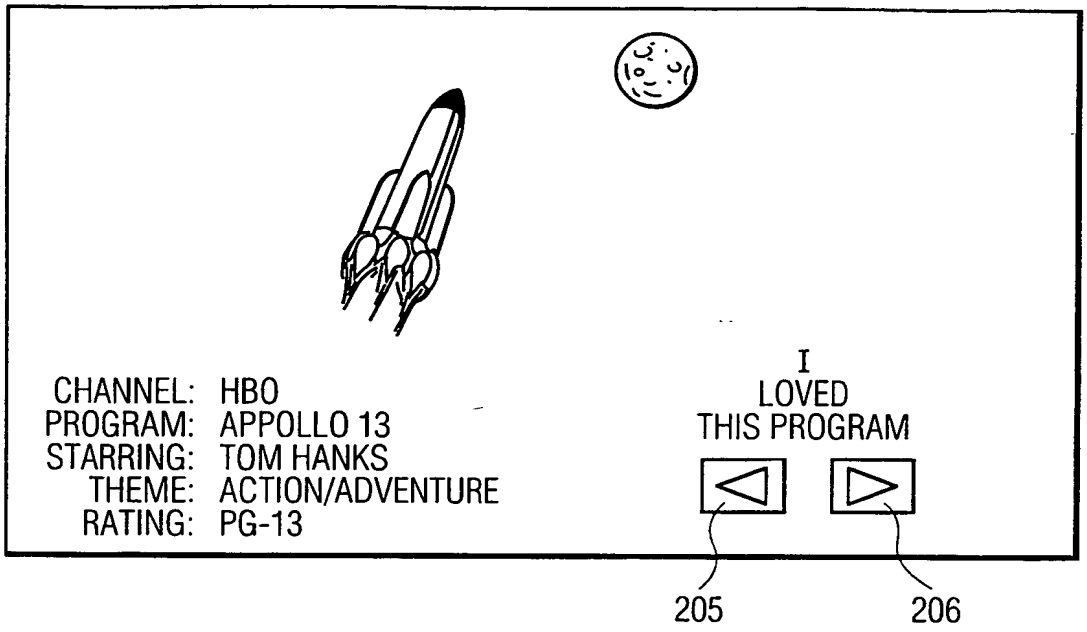

CHANNEL: HBO
PROGRAM: APPOLLO 13
STARRING: TOM HANKS
THEME: ACTION/ADVENTURE
RATING: PG-13
I
LOVED
THIS PROGRAM
205
206

FIG. 2A

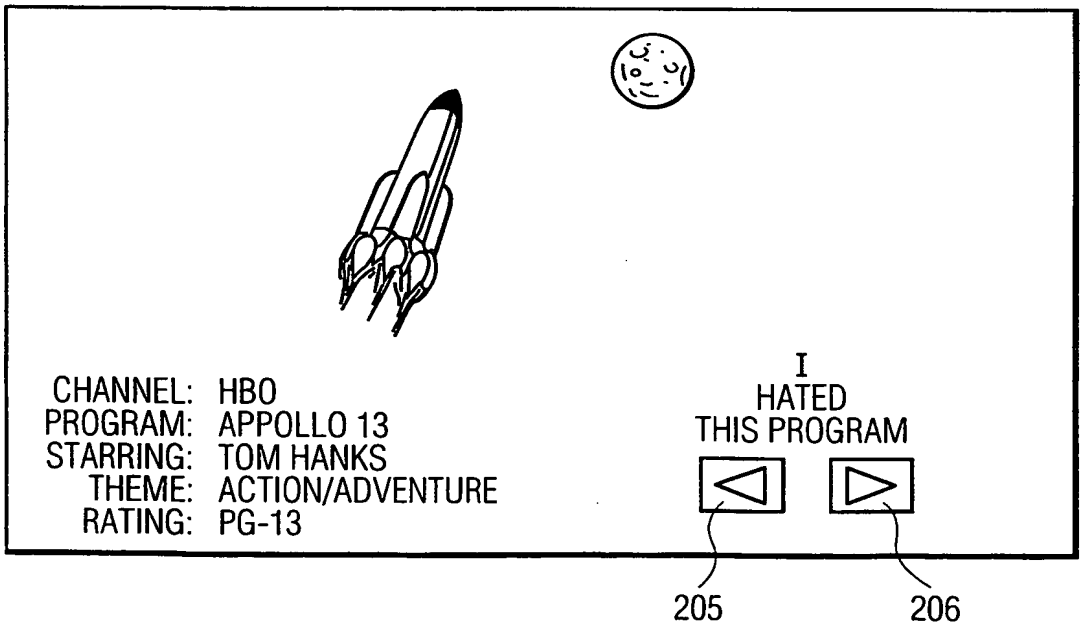

CHANNEL: HBO
PROGRAM: APPOLLO 13
STARRING: TOM HANKS
THEME: ACTION/ADVENTURE
RATING: PG-13
I
HATED
THIS PROGRAM
205
206

FIG. 2B

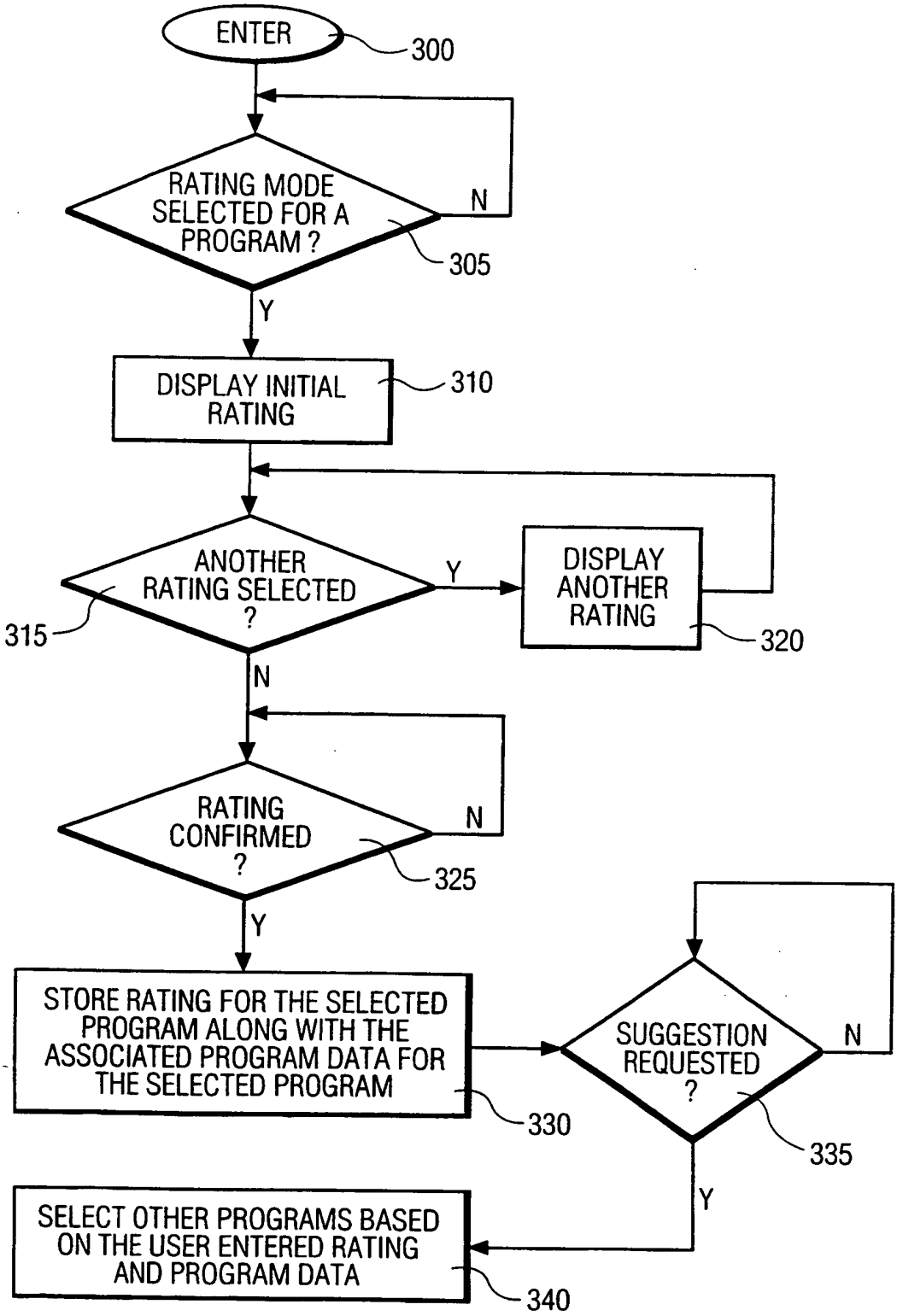

ENTER
300
RATING MODE SELECTED FOR A PROGRAM ?
N
305
Y
DISPLAY INITIAL RATING
310
ANOTHER RATING SELECTED ?
Y
DISPLAY ANOTHER RATING
320
315
N
RATING CONFIRMED ?
N
325
Y
STORE RATING FOR THE SELECTED PROGRAM ALONG WITH THE ASSOCIATED PROGRAM DATA FOR THE SELECTED PROGRAM
330
SUGGESTION REQUESTED ?
N
335
Y
SELECT OTHER PROGRAMS BASED ON THE USER ENTERED RATING AND PROGRAM DATA
340

FIG. 3

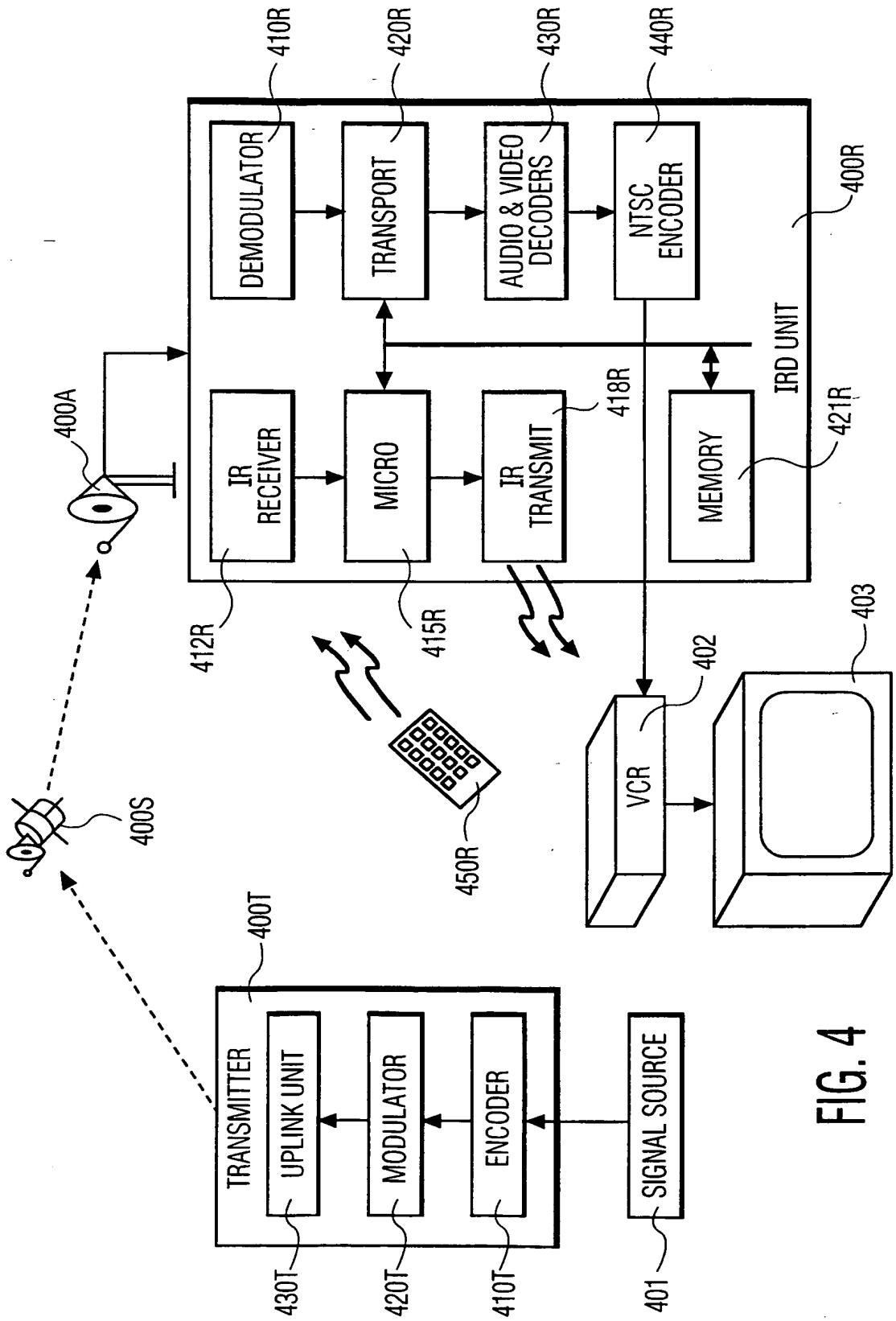

410R
420R
430R
440R
DEMODULATOR
TRANSPORT
AUDIO & VIDEO DECODERS
NTSC ENCODER
400R
IRD UNIT
400A
IR RECEIVER
MICRO
IR TRANSMIT
418R
MEMORY
421R
412R
415R
403
402
VCR
450R
400S
400T
TRANSMITTER
UPLINK UNIT
MODULATOR
ENCODER
SIGNAL SOURCE
430T
420T
410T
401

FIG. 4

INTERNATIONAL SEARCH REPORT

International Application No
PCT/US 99/00409

A. CLASSIFICATION OF SUBJECT MATTER
IPC 6 H04N5/445

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 6 H04N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 410 344 A (BARKER ALVA C ET AL) 25 April 1995 see column 6, line 53 - column 7, line 20 see column 9, line 4 - line 48 ---	1-13
X A	US 5 223 924 A (STRUBBE HUGO J) 29 June 1993 see column 2, line 50 - line 60 see column 4, line 39 - column 6, line 33 ---	1,2, 5-10,13 3,4,11, 12
A	WO 96 17467 A (HERZ FREDERICK ;UNGAR LYLE (US); WACHOB DAVID (US); ZHANG JIAN (US) 6 June 1996 see page 6, line 14 - line 34 see page 53, line 11 - line 35 see page 81, line 14 - page 83, line 19 --- -/--	1,6,9

[X] Further documents are listed in the continuation of box C.

[X] Patent family members are listed in annex.

° Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
15 April 1999	22/04/1999

Name and mailing address of the ISA	Authorized officer
European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Beaudoin, O

Form PCT/ISA/210 (second sheet) (July 1992)

INTERNATIONAL SEARCH REPORT

International Application No
PCT/US 99/00409

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category '	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	EP 0 774 866 A (THOMSON CONSUMER ELECTRONICS) 21 May 1997 see column 2, line 26 - line 52; figure 2 see column 5, line 40 - column 6, line 9; figure 6	1,6,9

Form PCT/ISA/210 (continuation of second sheet) (July 1992)

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No
PCT/US 99/00409

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 5410344 A	25-04-1995	NONE	
US 5223924 A	29-06-1993	DE 69322439 D	21-01-1999
		EP 0572090 A	01-12-1993
		JP 6197342 A	15-07-1994
		US 5469206 A	21-11-1995
		US 5483278 A	09-01-1996
WO 9617467 A	06-06-1996	US 5758257 A	26-05-1998
		AU 4410396 A	19-06-1996
		CA 2207868 A	06-06-1996
		EP 0796538 A	24-09-1997
		US 5734720 A	31-03-1998
		US 5754938 A	19-05-1998
		US 5754939 A	19-05-1998
		US 5835087 A	10-11-1998
EP 0774866 A	21-05-1997	US 5867226 A	02-02-1999
		BR 9605543 A	11-08-1998
		JP 9200638 A	31-07-1997
		SG 49982 A	15-06-1998

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Copy for the Elected Office (EO/US)

PATENT COOPERATION TREATY

From the INTERNATIONAL BUREAU

PCT

NOTIFICATION OF THE RECORDING OF A CHANGE

(PCT Rule 92bis.1 and Administrative Instructions, Section 422)

To:

TRIPOLI, Joseph, S.
Thomson Multimedia Licensing Incorporated
P.O. Box 5312
Princeton, NJ 08540
ETATS-UNIS D'AMERIQUE

5000

Date of mailing (day/month/year) 13 July 2000 (13.07.00)	
Applicant's or agent's file reference RCA 88859	**IMPORTANT NOTIFICATION**
International application No. PCT/US99/00409	**International filing date** (day/month/year) 08 January 1999 (08.01.99)

1. The following indications appeared on record concerning:

[X] the applicant [] the inventor [] the agent [] the common representative

Name and Address	State of Nationality	State of Residence
THOMSON CONSUMER ELECTRONICS, INC. 10330 North Meridian Street Indianapolis, IN 46290 United States of America	US	US
	Telephone No.	
	Facsimile No.	
	Teleprinter No.	

2. The International Bureau hereby notifies the applicant that the following change has been recorded concerning:

[X] the person [X] the name [X] the address [X] the nationality [X] the residence

Name and Address	State of Nationality	State of Residence
THOMSON LICENSING S.A. 46, Quai A. Le Galo 92648 Boulogne Cedex France	FR	FR
	Telephone No.	
	Facsimile No.	
	Teleprinter No.	

3. Further observations, if necessary:

4. A copy of this notification has been sent to:

[X] the receiving Office
[] the International Searching Authority
[] the International Preliminary Examining Authority
[] the designated Offices concerned
[X] the elected Offices concerned
[X] other: THOMSON CONSUMER ELECTRONICS

The International Bureau of WIPO **34, chemin des Colombettes** **1211 Geneva 20, Switzerland**	Authorized officer Catherine Massetti
Facsimile No.: (41-22) 740.14.35	Telephone No.: (41-22) 338.83.38

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PATENT COOPERATION TREATY

From the INTERNATIONAL BUREAU

PCT

NOTIFICATION OF ELECTION

(PCT Rule 61.2)

To:

Assistant Commissioner for Patents
United States Patent and Trademark Office
Box PCT
Washington, D.C.20231
ÉTATS-UNIS D'AMÉRIQUE

in its capacity as elected Office

Date of mailing (day/month/year) 02 September 1999 (02.09.99)	
International application No. PCT/US99/00409	**Applicant's or agent's file reference** RCA 88859
International filing date (day/month/year) 08 January 1999 (08.01.99)	**Priority date** (day/month/year) 08 January 1998 (08.01.98)
Applicant WESTLAKE, Mark, Sheridan et al	

1. The designated Office is hereby notified of its election made:

[X] in the demand filed with the International Preliminary Examining Authority on:

04 August 1999 (04.08.99)

[] in a notice effecting later election filed with the International Bureau on:

2. The election [X] was

[] was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

The International Bureau of WIPO
34, chemin des Colombettes
1211 Geneva 20, Switzerland

Facsimile No.: (41-22) 740.14.35

Authorized officer

Jean-Marie McAdams

Telephone No.: (41-22) 338.83.38

PATENT COOPERATION TREATY

From the
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To:

THOMSON MULTIMEDIA LICENSING INC.
PO Box 5312
PRINCETON, NEW JERSEY 08543
ETATS-UNIS D'AMERIQUE

PCT

NOTIFICATION OF TRANSMITTAL OF THE INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Rule 71.1)

Date of mailing *(day/month/year)*	24.03.2000
Applicant's or agent's file reference: RCA 88859	**IMPORTANT NOTIFICATION**

International application No.	International filing date *(day/month/year)*	Priority date *(day/month/year)*
PCT/US99/00409	08/01/1999	08/01/1998

Applicant
THOMSON CONSUMER ELECTRONICS, INC. et al.

1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary examination report and its annexes, if any, established on the international application.

2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.

3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.

4. **REMINDER**

The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices) (Article 39(1)) (see also the reminder sent by the International Bureau with Form PCT/IB/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide.

Name and mailing address of the IPEA/	Authorized officer
European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Stannartz, B Tel.+49 89 2399-8242

Form PCT/IPEA/416 (July 1992)

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PATENT COOPERATION TREATY

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INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference	FOR FURTHER ACTION	See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)
RCA 88859		
International application No.	International filing date *(day/month/year)*	Priority date *(day/month/year)*
PCT/US99/00409	08/01/1999	08/01/1998
International Patent Classification (IPC) or national classification and IPC H04N5/445		
Applicant THOMSON CONSUMER ELECTRONICS, INC. et al.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 6 sheets, including this cover sheet.

 ☐ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

 These annexes consist of a total of sheets.

3. This report contains indications relating to the following items:

 - I ☒ Basis of the report
 - II ☐ Priority
 - III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
 - IV ☐ Lack of unity of invention
 - V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations suporting such statement
 - VI ☐ Certain documents cited
 - VII ☒ Certain defects in the international application
 - VIII ☒ Certain observations on the international application

Date of submission of the demand	Date of completion of this report
04/08/1999	24.03.2000
Name and mailing address of the international preliminary examining authority: European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized officer de Dieuleveult, A Telephone No. +49 89 2399 8946

Form PCT/IPEA/409 (cover sheet) (January 1994)

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/US99/00409

I. Basis of the report

1. This report has been drawn on the basis of (*substitute sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to the report since they do not contain amendments.*):

Description, pages:

1-11 as originally filed

Claims, No.:

1-13 as originally filed

Drawings, sheets:

1/4-4/4 as originally filed

2. The amendments have resulted in the cancellation of:

☐ the description, pages:
☐ the claims, Nos.:
☐ the drawings, sheets:

3. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):

4. Additional observations, if necessary:

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes:	Claims	
	No:	Claims	1-13
Inventive step (IS)	Yes:	Claims	
	No:	Claims	1-13
Industrial applicability (IA)	Yes:	Claims	1-13
	No:	Claims	

2. Citations and explanations

see separate sheet

VII. Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

see separate sheet

VIII. Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

see separate sheet

V. Reasoned statement

1. Reference is made to the following documents:
 D1: US-A-5 410 344 (BARKER ALVA C ET AL) 25 April 1995
 D2: US-A-5 223 924 (STRUBBE HUGO J) 29 June 1993

2. Claim 1:
 Document D1 discloses a method (see col. 2, lines 23-40) for controlling a signal processing system (20a), comprising the steps of:
 receiving from a remote source (12) a plurality of programs and associated program information (see col. 4, lines 6-21);
 selecting a first program from said plurality of programs in response to a user input (see col. 5, lines 46-50);
 inputting rating information for said first selected program (see col. 6, line 60 - col. 7, line 7); and
 selecting a second program in response to said input rating information and said associated program information (see col. 6, lines 5-16).
 Besides, a similar prior art is also disclosed in document D2.
 Therefore, the subject matter of claim 1 lacks novelty with respect to the disclosure of D1 or D2.

3. Claim 9:
 The same objection likewise applies to this corresponding apparatus claim.

4. Claim 6:
 Reference is preferably made to document D2 which further discloses a method for processing program guide information, comprising the steps of:
 receiving said program guide information from a remote source (see col. 2, line 50 - col. 3, line 8);
 storing said program guide information in memory (see col. 4, lines 17-21);
 obtaining a rating locally for a selected program (see col. 3, lines 17-21 and col. 4, lines 21-26);
 associating said rating with said selected program (see col. 4, line 59 - col. 5, line 11).
 Consequently, the subject matter of claim 6 lacks novelty at least with respect to the disclosure of D2.

5. Claims 2-5, 7, 8 and 10-13:
These dependent claims do not appear to comprise any additional features that would render their subject-matter new and inventive over the available prior art.
In particular:
- rating information indicating user preference (claims 2, 7 and 10) is known from D1 (see col. 1, lines 7-10) and D2 (see col. 3, lines 17-21);
- rating information comprising numeric characters (claims 3 and 11) is contemplated in D1 (see Fig. 5);
- storing said rating information in memory (claim 5) is suggested in both D1 (see file 32a) and D2 (see memory 54).
Therefore, these claims fail together with the independent claims for lack of novelty, or at least for lack of inventive step.

VII. Certain defects

1. The independent claims are not in the two-part form in accordance with Rule 6.3(b) PCT, which in the present case would be appropriate, with those features known in combination from the prior art (documents D1 and D2) being placed in a preamble (Rule 6.3(b)(i) PCT) and with the remaining features being included in a characterising part (Rule 6.3(b)(ii) PCT).

2. The features of the claims are not provided with reference signs placed in parentheses (Rule 6.2(b) PCT).

3. Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in the documents D1 and D2 is not mentioned in the description, nor are these documents identified therein.

4. The vague and imprecise statement in the description on page 11, lines 6-11 implies that the subject-matter for which protection is sought may be different to that defined by the claims, thereby resulting in lack of clarity (Article 6 PCT) when used to interpret them (see also the PCT Guidelines, PCT/GL/3 III, 4.3a).

VIII. Certain observations

1. To satisfy the requirements of Article 6 PCT and clearly differentiate the rating information **locally** input by the user from the rating information given to a program at the transmitter side (see "PG-13" in block 120 of Fig. 1), the additional feature of claim 13 should be introduced in the subject matter of claim 1 (see claims 6 and 9 in comparison).

2. The steps of claim 6 are also obscure since:
 - "obtaining a rating locally" could be interpreted by having a **remotely** input rating (such as "PG-13") **locally** displayed and thus, not be restricted to locally inputting rating information, which appears to be an essential feature of the present alleged invention;
 - "associating said rating with said selected program" does not specify that this association is to be used to select a program in response to it, which constitutes another essential feature.

3. Finally, the additional feature of claim 8 is not quite understandable.

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference	**FOR FURTHER ACTION**	See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)
RCA 88859		
International application No.	International filing date *(day/month/year)*	Priority date *(day/month/year)*
PCT/US99/00409	08/01/1999	08/01/1998
International Patent Classification (IPC) or national classification and IPC H04N5/445		
Applicant THOMSON CONSUMER ELECTRONICS, INC. et al.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 6 sheets, including this cover sheet.

 ☐ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

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3. This report contains indications relating to the following items:

 - I ☒ Basis of the report
 - II ☐ Priority
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 - IV ☐ Lack of unity of invention
 - V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations suporting such statement
 - VI ☐ Certain documents cited
 - VII ☒ Certain defects in the international application
 - VIII ☒ Certain observations on the international application

Date of submission of the demand	Date of completion of this report
04/08/1999	24.03.2000
Name and mailing address of the international preliminary examining authority: European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized officer de Dieuleveult, A Telephone No. +49 89 2399 8946

Form PCT/IPEA/409 (cover sheet) (January 1994)